where M1, M2, n1 and n2 are all indepenedent integers, equal to 1, 2 or 3
and where

Tc1 and Tpc1 are the chip time and code circulation period for the first pseudo-noise code, and

Tc2 and Tpc2 are the chip time and code circulation period for the second pseudo-noise code.

20. A pseudo-random communication system in which a transmitter-generated encoded signal is to be correlated with a receiver-generated similarly encoded signal for recognizing synchronization of the transmitted and received signals in the presence of undesired received energy, said system comprising: a spread-spectrum trnasmitter including at least two pseudo-noise generators for producing at least two pseudo-noise signals which are related in a predetermined fashion, mixing measn for receiving and mixing said two pseudo-noise signals with respective carrier and information signals to produce an output signal, and means for transmitting the output signal; and a spread-spectrum receiver comprising correlator means and matched filter means coupled in circuit to form synchronization detector circuit means for receiving and detecting the encoded output signal transmitted by said transmitter means so as to recover the information therefrom; said correlator means including at least one pseudo-noise generator means for producing pseudo-noise signals related in a predetermined fashion to the pseudo-noise signals produced by the transmitter pseudo-noise generators and mixer means for mixing said pseudo-noise signals with the received encoded output signals and coupled in circuit with said matched filter circuit means; wherein the two pseudo-noise signals are multiple-bit length M-series codes and wherein first and second clocks are used for chip timing of the tow pseudo-noise rates, said first and second clocks having a predetermined frequency ratio slightly less than unity.

21. A method for producing a pseudo-noise signal for use in transmitting and receiving encoded signals in a pseudo-random communication system, said method comprising: producing at least two pseudo-noise signals which are related in a predetermined fashion, said two diffrent pseudo-noise signals having a predetermined relationship between their chip rates, said chip rates thereof being related by ratio slightly removed from unity, and combining said two pseudo-noise signals in a predetermined fashion to form a composite signal for use in encoding and decoding information in said pseudo-random communications system; wherein the two pseudo-noise signals are mulitiple-bit length M-series codes and wherein first and second clocks are used for chip timing of the two pseudo-noise rates, said first and second clocks having a predetermined frequency ratio slightly less than unity.

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